# ADS as a Force Protector for Expeditionary Forces

Expeditionary Warfare Conference

### 30 October 2001
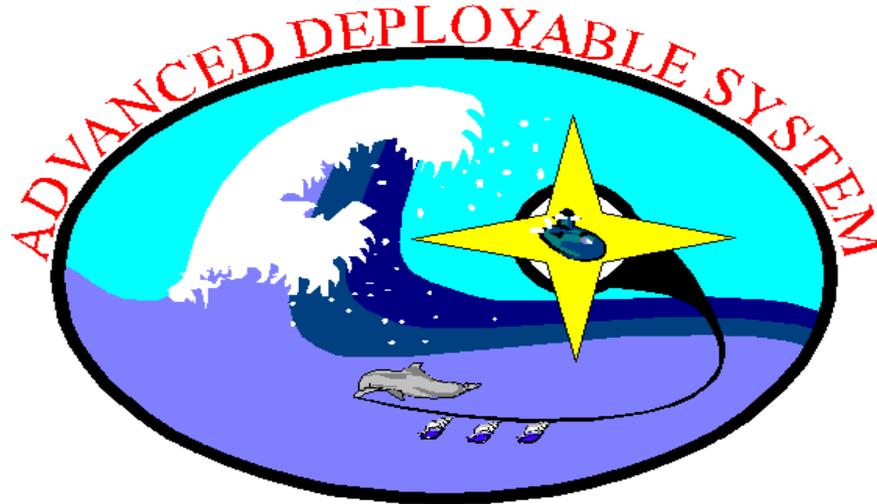


Jim Gilbert
TRW Systems
(619) 542-2234 jim.gilbert@trw.com

ADS Overview

Threat Port Surveillance

Barrier

Joint Maritime Access & Control

Field

Joint Command Center

Friendly Port Surveillance

Barrier

Shore Site

Sea Lanes of Communication Protection

Forward Storage

RESUPPLY SHIPPING

ADS Underwater Segment

Canister

B-Shell

Array

EO or AO Sensor Element

Cable Pack

Pressure Vessel

Electronics & Battery
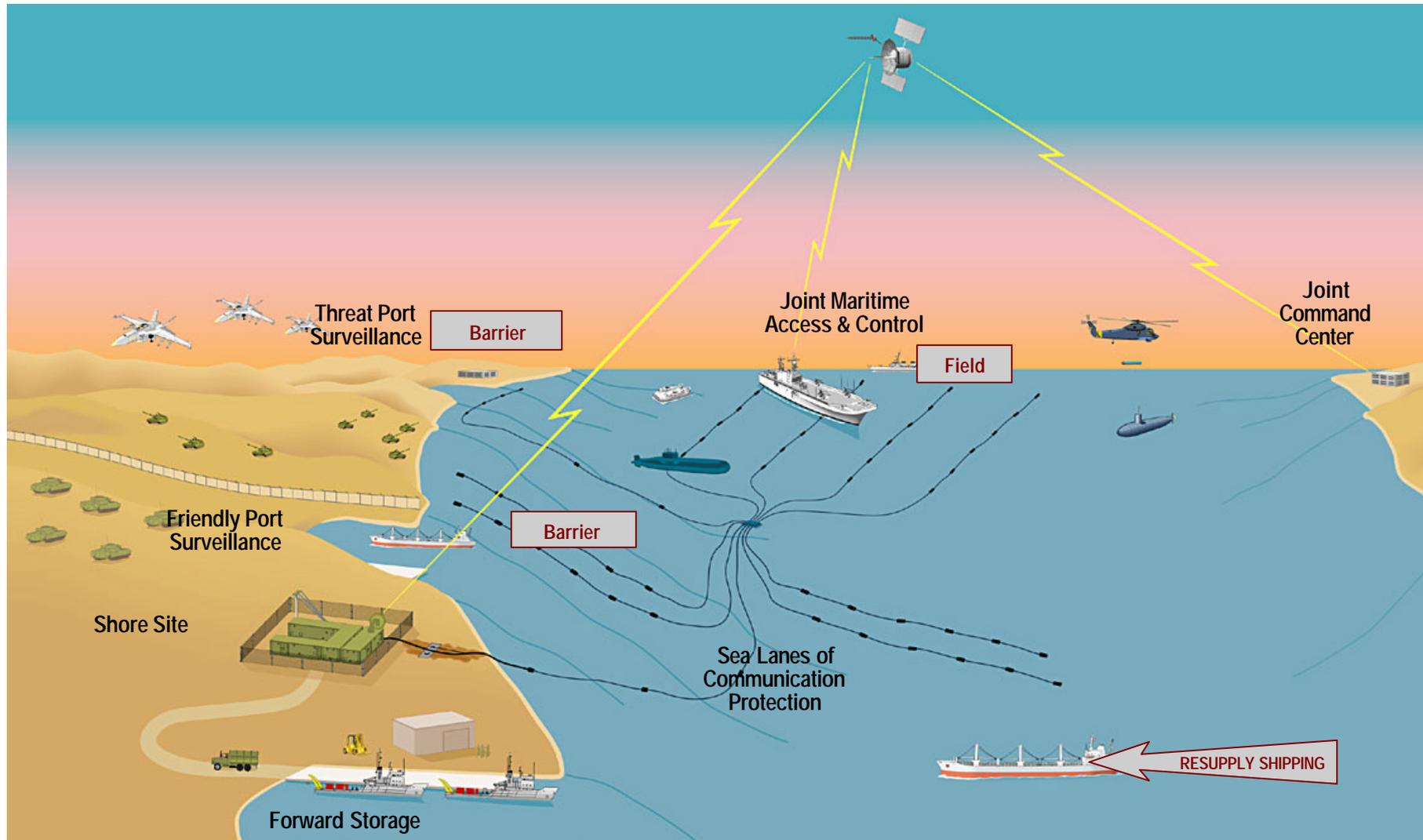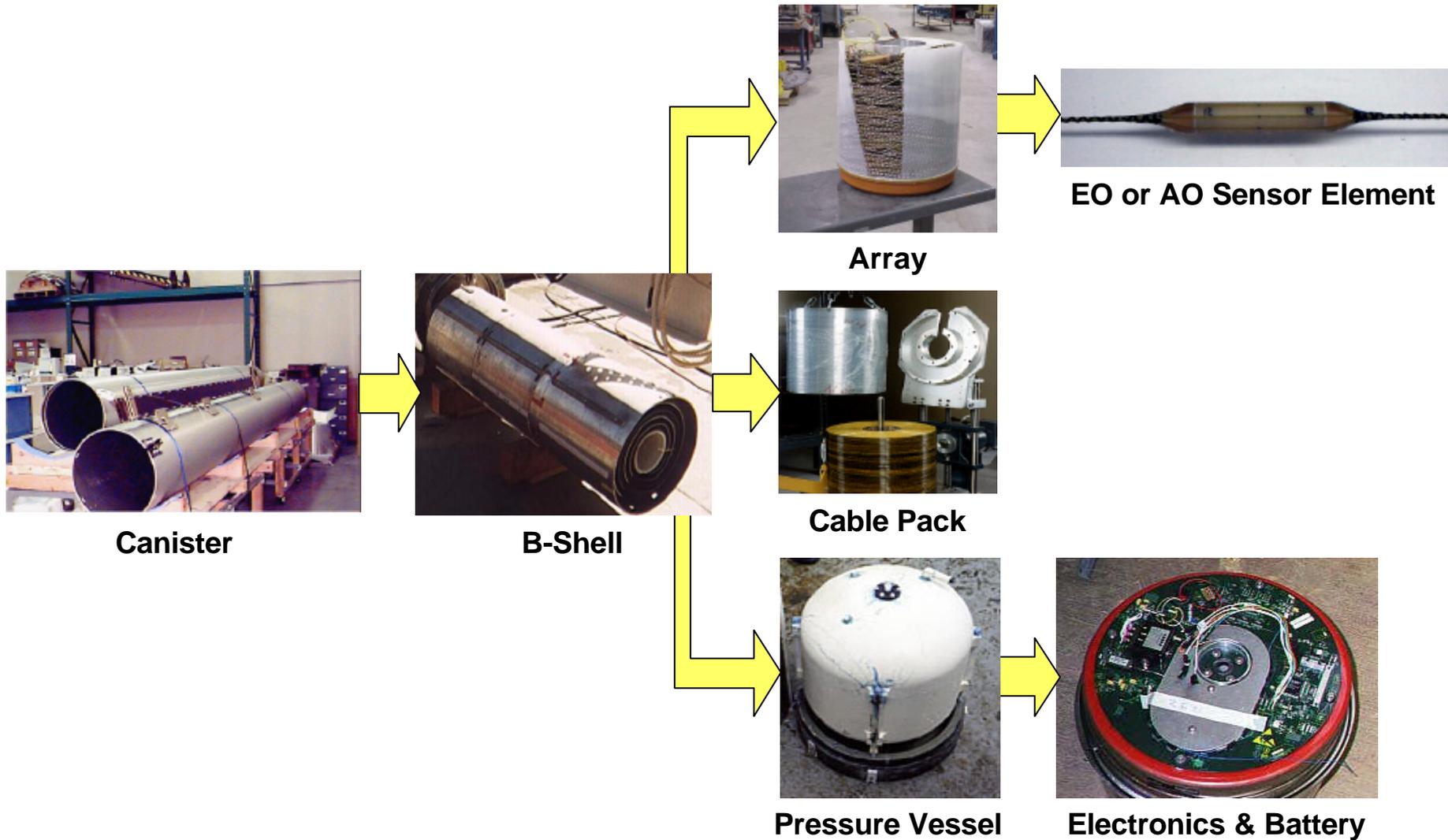
Pre-Operation Mining Surveillance

Clandestine Implanted Finger

Long trunk to Connectivity And Relay Van (CARV)

FET MINEX

ADS Track

MK 55 Estimated

MK 6 Estimated

33 Degrees Latitude (min)

MK 55 Actual

MK 6 Actual

Ship Track

Moored Mine Detections:

5 of 5

Bottom Mine Detections:

0 of 2**

**117 Degrees Longitude (min)**
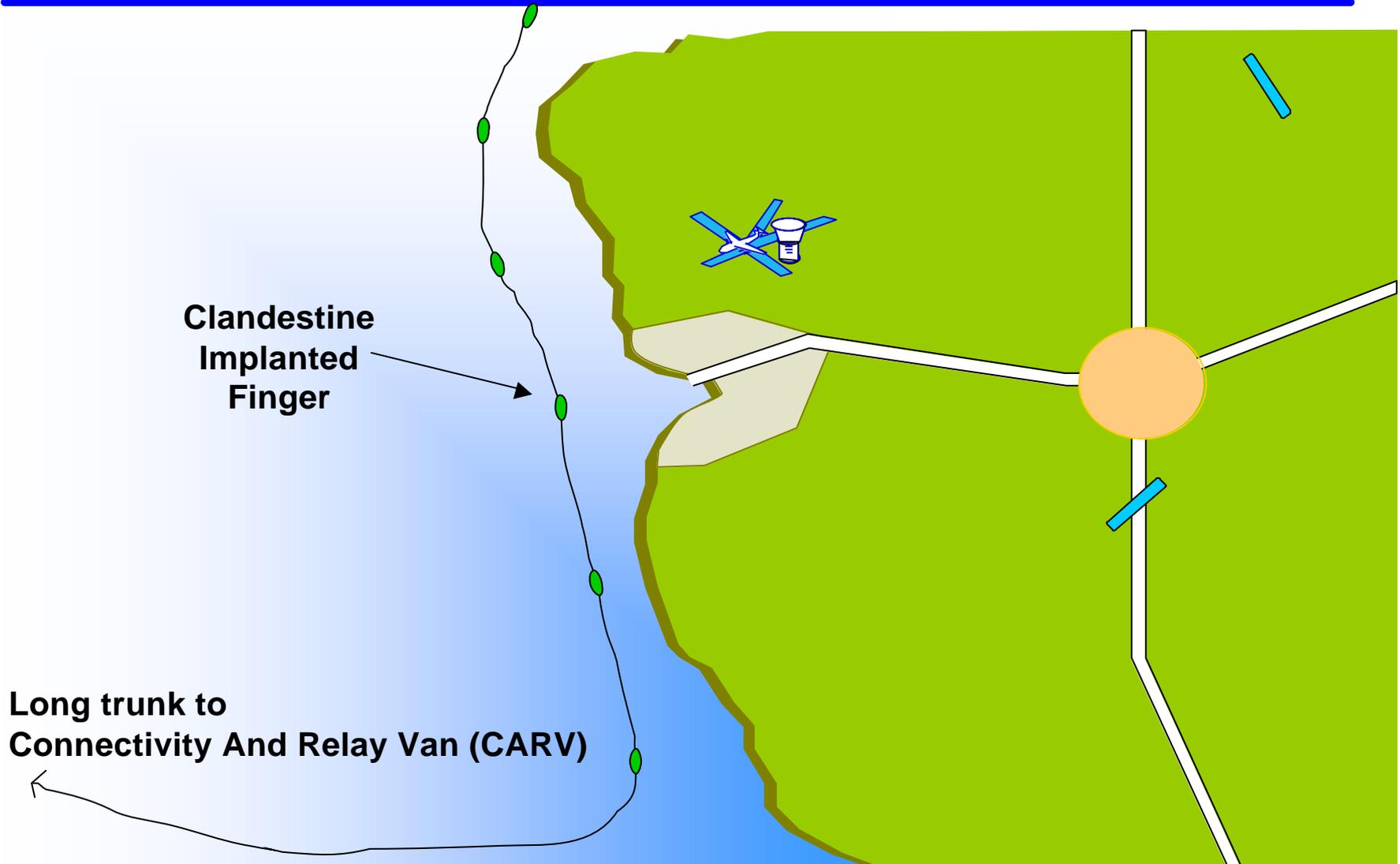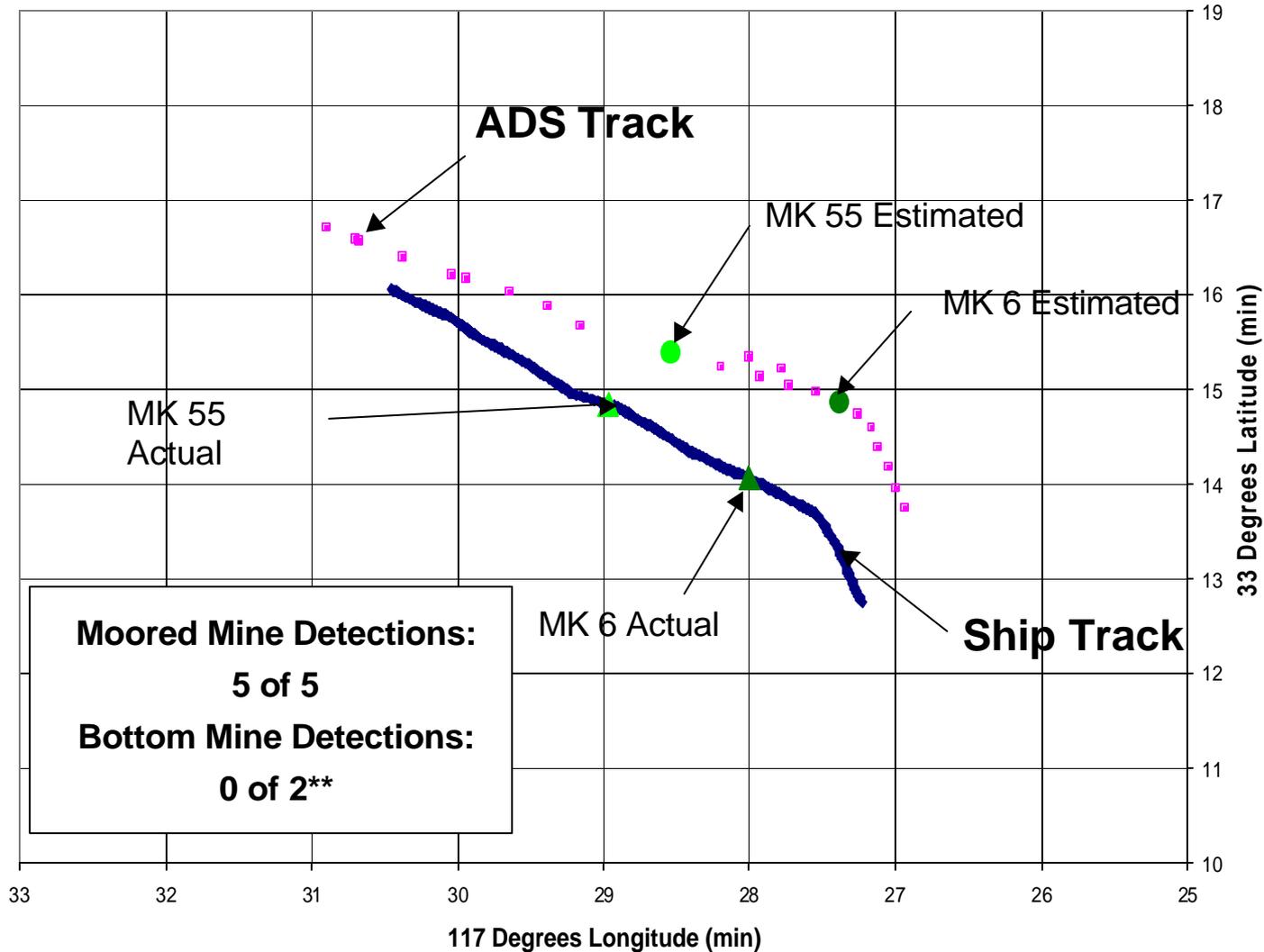
** Real Time; post processing indicates possibility that sensor did detect event.

10.31.01

5

Complete Maritime View
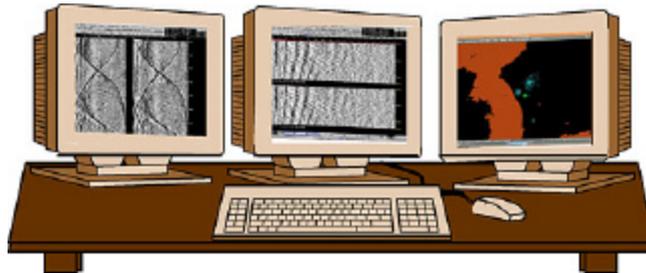
I & W ⟶ Force Protection

Notional Force Protection Laydown

MPA Support

CVBG OPAREA

DD/LAMPS Support

**AOA
30 x 60 nm
Box
48 Nodes**

Barrier width – 10 nm
MDR = 5 km (2.7 nm)
5 nm spacing (0.4 nm overlap)
Tgt @ 5 kts, 2 hours to penetrate
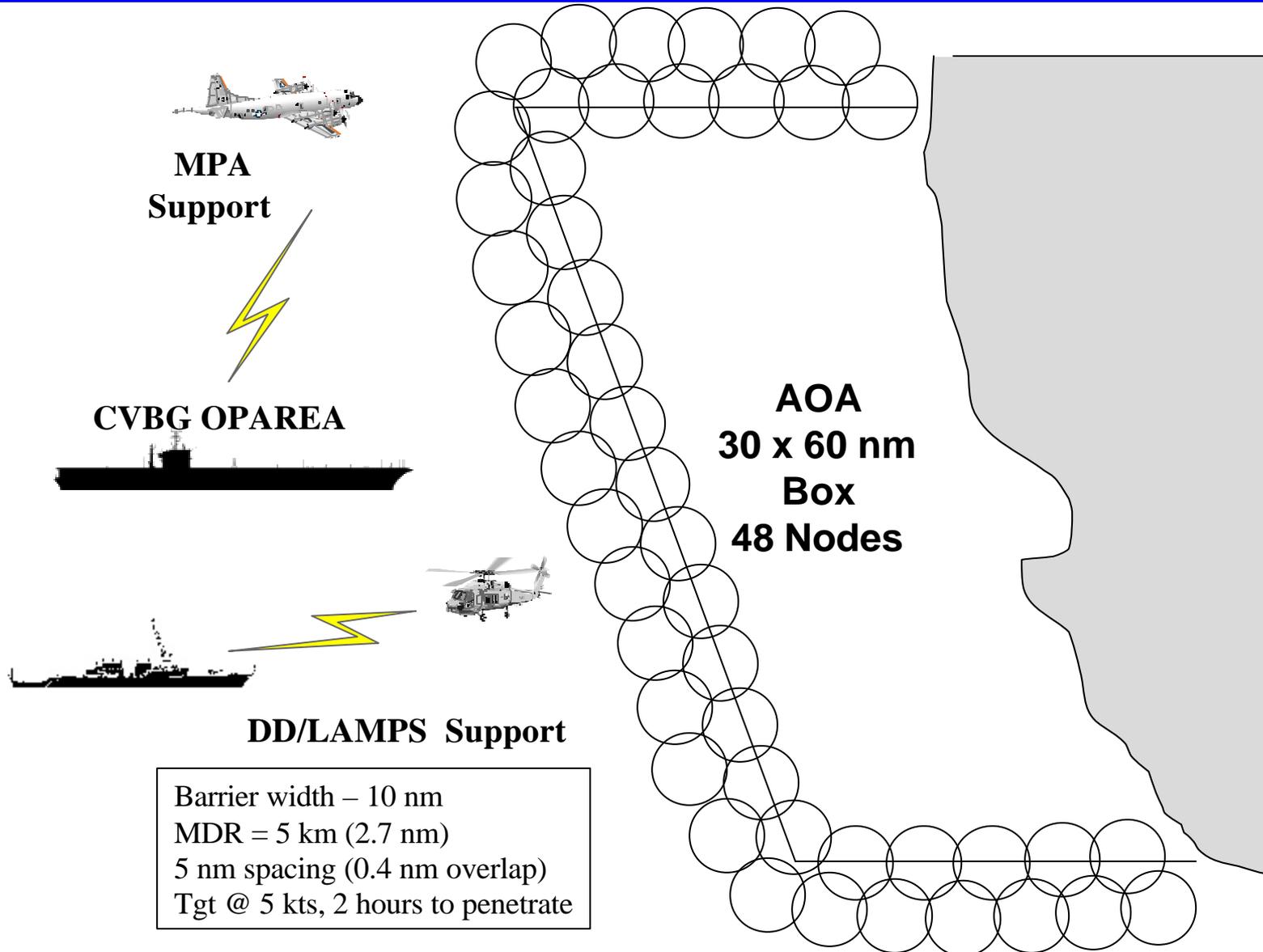
FET (Feb-May 99) Results

- **Three major fleet exercises**
  - **7 cue-to-kills**
  - **Accounted for all sub kills in two exercises**
- **Exceeded Design Ao and Pd / Lowered timelate reporting significantly**
- **Mine laying detection**
- **Planes, trains, etc.**

"… love the system and the utility is perfect just for an environment like this"

CAPT LEFEVER (COMDESRON 21)

"… ADS was significant portion of first kill on Dolphin this afternoon with first contact info and positive identification criteria"

RADM LAFLEUR (COMCRUDESGRU 1)

"… cue to kills number for Kernal Blitz is misleading. The kill number would have been much higher if more tactical prosecution assets were available."

RADM SMITH (COMPHIBGRU 3)

Challenges

- **Survivability**
- **Understanding Tactical Employment Desires**
    - **Timeline**
    - **Processing Ashore / Afloat**
    - **People vs. Relay**
    - **C4I**